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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/004,770

12/04/2001

Indra Laksono

1459-VIXS032

7929

29331

7590

02/01/2008

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EXAMINER

HUYNH, SON P

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

02/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/004,770	Applicant(s) LAKSONO ET AL.	
	Examiner Son P. Huynh	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 70-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 70-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 70- 101 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-69 have been canceled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 70-77, 79-85, 87-95, 97-101 are rejected under 35 U.S.C. 102(b) as being anticipated by Porter et al. (US 5,864,682).

Regarding claim 70, Porter discloses a method comprising:

generating, at a video server, a frame index for a video stream, the frame index comprising a plurality of frame index entries corresponding to a plurality of frames of the

video stream (interpreted as generating, at video server comprising storage, tag file generator, stream server, video pump, etc., a frame index/entry for each frame of a video stream, etc. in the tag file, the frame index/entry for each frame in tag file comprising entry for each frame of video stream within MPEG file 104 - see include, but are not limited to, col. 9, line 5-col. 11, line 49, figures 1b, 2b-2c);

receiving, at the video server, a first presentation request for the video stream from a display client via a network, the video server remote to the display client (interpreted as receiving at the video server, including storage 140, tag file generator, stream server, video pump, etc., a first presentation request such as seek operation, fast forward, slow forward, etc. for the video stream from client comprising set top box, television, etc. via a network (120 and 150 is a single network – col. 6, lines 12-14) , the video server including stream server, tag file generator, etc. remote to the display device at client - see include, but are not limited to, figure 1b, col. 11, line 50-col. 13, line 25, col. 16, lines 35-67; col. 19, line 3-col. 21, line 25);

determining, at the video server, a first subset of frames of the plurality of frames and a first presentation sequence for the first subset of frames based on the frame index in response to the first presentation request (determining, at stream server, video pump, storage device, etc. a subset of frames of the plurality of frames and presentation sequence for the subset in response to the request operation received from the client based on entry of frames and other information in the tag file - see include, but are not limited to, figures 1b, 2b-2c, 6-7, col. 3, line 44-col. 4, line 32, col. 9, line 5-col. 13, line

15, col. 16, line 35-col. 18, line 46, col. 20, line 35-col. 21, line 25, col. 23, line 30, lines 30-65);

transmitting the first subset of frames having the first presentation sequence to the display client via the network (transmitting the subset of frames having the presentation sequence to the client for display via the network in response to the seek operations, fast forward operations, slow forward request, etc. – see include, but are not limited to, col. 6, line 10-22, col. 11, line 50-col. 13, line 24, col. 16, line 35-col. 21, line 25).

Regarding claim 71, Porter further discloses each frame index entry of the plurality of frame index entries comprises an identifier of a frame type of a corresponding frame (e.g., tag file contain entry for each frame includes frame type such as I frame, B frame, P frame - see include, but are not limited to, col. 9, lines 23-40, col. 10, line 5-15; col. 11, lines 50-67, col. 15, line 43-col. 16, line 32, col. 17, line 57-col. 18, line 46, figures 1A, 2c).

Regarding claim 72, Porter further discloses each frame index further comprises an offset value identifying a starting location of data representative of the corresponding frame within a file representing of the video stream (e.g., offset at the start of picture, start offset, or pack offset, initial MPEG time offset, etc.) and a size value representative of a size of the data representative of the corresponding frame (e.g., frame size, picture size, etc.) – see include, but are not limited to, figures 2b-2c, col. 9, lines 23-40, col. 10,

line 5-15; col. 11, lines 50-67, col. 15, line 43-col. 16, line 32, col. 17, line 37-col. 18, line 46).

Regarding claim 73, Porter further discloses, wherein generating the frame index comprises:

receiving, at the server, and encoded data stream representative of the video stream (e.g., MPEG file 104 – figure 1b);

processing, at the video server, the encoded data stream to identify each frame of the video stream (the tag file generator generates a tag file 106, containing entry of frame and other information, from the MPEG file 104 - see include, but are not limited to, figure 1b, col. 7, lines 25-62);

generating, at the video server, a frame index entry of the frame index for each frame identified during processing (generating, at the video server, tag file comprises entry for each frames identified during processing of MPEG file 104 – see include, but are not limited to, figure 1b, 2b-2c, col. 7, lines 24-63, col. 9, line 6-col. 11, line 49); and

storing the encoded data stream (storing MPEG file in video pump or storage – see include, but are not limited to, figure 1b, col. 6, line 1-col. 7, line 62).

Regarding claim 74, Porter further discloses, wherein generating the frame index comprises:

receiving, at the video server, and unencoded data stream representative of the video stream (e.g., receiving video before being encoded by MPEG encoder – col. 7, lines 45-53);

encoding, at the video server, the unencoded data stream to generating an encoded data stream representative of the video stream (e.g., using MPEG encoder to generate encoded MPEG data stream - see include, but are not limited to, col. 7, lines 45-53)

generating, at the video server, a frame index entry of the frame index for each frame identified frame of the encoded video stream (generating, at the video server, tag file comprises entry for each frames identified frame of MPEG file 104 – see include, but are not limited to, figure 1b, 2b-2c, col. 7, lines 24-63, col. 9, line 6-col. 11, line 49); and

storing the encoded data stream (storing MPEG file in video pump or storage – see include, but are not limited to, figure 1b, col. 6, line 1-col. 7, line 62).

Regarding claim 75, Porter further discloses receiving, at the video server, a second presentation request for the video stream from the display client via the network (e.g., request for slow rewind, fast rewind, etc. from the client via the network - see include, but are not limited to, col. 16, lines 35-67);

determining, at the video server, a second subset of frames of the plurality of frames and a second presentation sequence for the second subset of frames based on the frame index in response to the second presentation request (determining, at the stream server, video pump, etc. a subset of frames of the plurality of frames and a

second presentation sequence based on the frame index in tag file in response to the request for slow rewind, fast rewind, etc. - see include, but are not limited to, col. 16, lines 35-67, col. 20, line 60-col. 21, line 25);

transmitting the second subset of frames having the second presentation sequence to the display client via the network (transmitting subset of frames having the presentation sequence to the client via the network for display in response to the slow rewind, fast rewind, etc. request - see include, but are not limited to, figure 1b, col. 16, lines 35-67, col. 20, line 60-col. 21, line 25).

Regarding claim 76, Porter further discloses the first presentation request comprises a request for a fast forward playback and the second presentation request comprises a request for a fast reverse playback (see include, but are not limited to, col. 16, lines 34-67, col. 18, line 1-col. 21, line 25).

Regarding claim 77, Porter further discloses the first presentation request comprises a request for a fast forward playback at a first rate (e.g., slow forward or normal playback or 2x fast forward, etc.) and the second presentation request comprises a request for a forward at a second rate (e.g., 5x fast forward, seek operation), wherein the second rate is greater than the first rate (see include, but are not limited to, col. 16, line 34-col. 17, line 20, col. 18, line 1-col. 21, line 25, col. 24, lines 16-54).

Regarding claim 79, Porter further discloses receiving, at the video server, a second presentation request for the video stream from the display client via the network, the second presentation request comprising a presentation request for a normal playback of the video stream (e.g., request for playback the video in at normal rate or 1x, etc. from the client via the network - see include, but are not limited to, col. 9, lines 15-22, col. 11, lines 53-64, col. 15, lines 14-17, col. 15, lines 51-65, col. 22, lines 16-24);

determining, at the video server, a second subset of frames of the plurality of frames and a second presentation sequence for the second subset of frames based on the frame index in response to the second presentation request (determining, at the stream server, video pump, etc. a subset of frames of the plurality of frames and a second presentation sequence based on the frame index in tag file in response to the request for normal playback. - see include, but are not limited to, col. 9, lines 15-22, col. 11, lines 53-64, col. 15, lines 14-17, col. 15, lines 51-65, col. 22, lines 16-24, col. 16, lines 35-67, col. 20, line 60-col. 21, line 25);

transmitting at least a portion of the plurality of frames having the second presentation sequence to the display client via the network (transmitting subset of frames having the presentation sequence to the client via the network for display in response to the normal playback request - see include, but are not limited to, figure 1b, col. 9, lines 15-22, col. 11, lines 53-64, col. 15, lines 14-17, col. 15, lines 51-65, col. 22, lines 16-24; col. 16, lines 35-67, col. 20, line 60-col. 21, line 25).

Regarding claim 80, the additional limitations as claimed correspond to the additional limitations of claim 76 and are analyzed as discussed with respect to the rejection of claim 76.

Regarding claim 81, the limitations that correspond to the limitations of claims 70 and 76 are analyzed as discussed with respect to the rejection of claims 70 and 76.

Regarding claim 82, Porter further discloses the first subset of frames is represented by encoded data (MPEG file) and processing the first subset of frames comprising decoding the encoded data (see include, but are not limited to, col. 7, lines 25-62, col. 15, line 43-65, col. 17, lines 59-63).

Regarding claim 83, Porter further discloses for each frame of at least a portion of the first subset, modifying a presentation time stamp of the frame based on the first presentation sequence prior to transmitting the frame to the display client (e.g., modify with delayed time stamp or other time stamp - see include, but are not limited to, col. 7, lines 25-30, col. 14, line 60-col. 15, line 42, col. 16, line 7-31, col. 20, lines 45-59).

Regarding claim 84, Porter discloses a method comprising:

receiving, at a display client, user input indicating a requested playback of a video stream having a plurality of frames, the requested playback comprising one of a

fast forward playback or a fast reverse playback (see include, but are not limited to, col. 16, lines 67, col. 22, lines 7-54, col. 24, lines 18-54, figures 1a-1b, 6-7);

generating, at the display client, a presentation request based on the user input (see include, but are not limited to, figure 6, col. 16, lines 67, col. 22, lines 7-54, col. 24, lines 18-54);

transmitting the presentation request from the display client to a video server via a network, the video server remote from the display client (see include, but are not limited to, col. 16, lines 67, col. 22, lines 7-54, col. 24, lines 18-54 and discussion in the rejection of claim 70);

receiving, at the display client, a subset of the plurality of frames having a presentation sequence based on the requested playback from the video server via the network (receiving at the client a plurality of video frames of video from the video pump, storage, stream server, etc. via the network connected between the server and the client - see include, but are not limited to, figures 1b, 6, col. 16, lines 67, col. 22, lines 7-54, col. 24, lines 18-54 and discussion in the rejection of claim 70);

processing, at the display client, the subset of the plurality of frames for display in a display sequence based on the presentation sequence (e.g., the client decodes the MPEG data stream to reproduce the audio-visual sequence represented in the MPEG data stream for display as requested playback rate - see include, but are not limited to, col. 5, lines 40-64, col. 6, lines 46-52, col. 7, lines 19-22, col. 15, line 43-col. 16, line 67).

Regarding claim 85, Porter further discloses the first subset of frames is represented by encoded data and processing the first subset of frames comprises decoding the encoded data (see include, but are not limited to, col. 7, lines 19-22, col. 15, line 43-col. 16, line 67).

Regarding claim 87, Porter further discloses wherein the subset of the plurality of frames includes only intra-coded frames (I frames) - see include, but are not limited to, col. 17, line 59-col. 18, line 46).

Regarding claim 88, the limitations of the system that correspond to the limitations of the method as claimed in claim 70 and are analyzed as discussed with respect to the rejection of claim 70, wherein the claim "a recording module" is interpreted as storage and/or tag file generator; "an interface coupled to the network" is interpreted as interface of the stream server and downstream manager coupled to the network connected between the server and client; "a presentation control.." is interpreted as stream server, video pump, downstream manager (see include, but are not limited to, figures 1b, 6 and discussion in the rejection of claim 70).

Regarding claims 89-95, 97-101, the additional limitations of the system as claimed correspond to the additional limitations of the method as claimed in claims 71-77, 79-83 and are analyzed as discussed with respect to the rejections of claims 71-77, 79-83.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 78, 86, and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter as applied to claim 77, 84, or claim 95 above.

Regarding claim 78, Porter further discloses second subset of the plurality of frames includes only intra-coded frames (interpreted as subset that includes only I frame(s)) - see include, but are not limited to, col. 17, line 1-col. 18, line 45).

Porter does not explicitly disclose the first subset of the plurality of frames includes only intra-encoded frame and forward-predicted frames. However, Porter discloses different types of frames (I frames, B frames, P frames) in the MPEG file are easily to determined based on frame type information (col. 11, lines 55-64). Porter also discloses P frame and/or B frames are selected to provided with I frames depends on playback rate request (see include, but are not limited to, col. 16, lines 35-67, col. 17, line 1-col. 18, line 45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Porter that a subset of the plurality of frames includes only I frames and P frame (for example, based on playback

rate and/or playback quality required) in order to yield predictable results such as to maximize quality of picture according to network bandwidth.

Regarding claims 86 and 96, the additional limitations that correspond to the additional limitations as claimed in claim 78 and are analyzed as discussed with respect to the rejection of claim 78.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oguz et al. (US 6,871,006) discloses processing of MPEG encoded video for trick mode operation.

Lee (US 5,995,707) discloses speed change reproduction recording apparatus for VCR of digital HDTV and method thereof.

Lin et al. (US 2003/0093801 A1) discloses methods and systems for video streaming with VCR functionality.

Cannon et al. (US 6,014,706) discloses methods and apparatus for implementing control functions in a streamed video display system.

Green et al. (US 2002/0168175 A1) discloses systems and methods for playing digital video in reverse and fast forward mode.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Son P. Huynh

January 24, 2008


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